

REMARKS

Reconsideration and continued examination of this application are respectfully requested.

The amendment to the claims more clearly defines what applicants regard as their invention. Support for the amendments can be found throughout the application, for instance, in the claims as originally filed as well as pages 3, 4, and 9, and the examples. Accordingly, no questions of new matter should arise and entry of this amendment is respectfully requested.

In the Office Action, at pages 2-4, the Examiner recites her reasons for issuing the Restriction Requirement. Applicants affirm the election of the textile substrates as defined in claims 23-34, 58-61, and 63. Applicants reserve the right to file one or more divisional applications to pursue the subject matter set forth in the claims that were not elected.

At page 4 of the Office Action, the Examiner rejects claims 23 and 24 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,819,463 to Ervin et al. The Examiner asserts that this patent relates to a carpet containing a carpet face with a primary backing and a foam backing of thermoplastic material containing "synthetic resinous hollow gas-filled microspheres." Thus, the Examiner believes that claims 23 and 24 of the present application would be anticipated and thus not patentable in view of Ervin et al.

The Examiner also rejects claims 23, 24 and 32 under 35 U.S.C. § 102(b) as being anticipated by the French patent application 2,160,422 assigned to Dow Chemical Company ("the French patent"). The Examiner asserts that this French patent shows a carpet containing a base gauze with a pile surface which is bonded to a foam backing. Again, the foam backing contains synthetic resin microspheres in a thermoplastic matrix.

For the following reasons, these two rejections are respectfully traversed.

To begin with, we first wish to point out that it appears the French patent is the equivalent of Ervin et al. and is simply the French version. According, any distinguishing points with respect to Ervin et al. apply equally to the French patent.

In reviewing Ervin et al., this patent specifically relates to the formation of a backed carpet wherein the foam layer is formed by an aqueous dispersion of a latex binder with expandable synthetic resinous microspheres. Unlike Ervin et al., claims 23, 24, and 32 of the present application relate to a textile substrate containing a backing layer with textile fibers and a

secondary backing affixed to the primary backing. The secondary backing comprises at least one thermoplastic material having polymeric microspheres dispersed therein. As also recited in claim 23, the thermoplastic material of the secondary backing comprises a polymer or copolymer of a vinyl compound. In other words, the thermoplastic material is a vinyl containing material which is quite different from the aqueous dispersion of a latex binder as described in Ervin et al.

As explained in the present application at pages 1-4, with respect to modular tiles and six foot rolled goods, dimensional stability can be a problem due to the short width and length of the textile substrate. As indicated by the inventors, latex binders are not used with modular tiles or six foot rolled goods due to the dimensional stability requirements needed for these types of carpets. Not surprisingly, Ervin et al. does not teach or suggest modular tiles or six foot wide rolled goods anywhere in the patent. Thus, Ervin et al.'s products would be limited to wall to wall carpets while the present invention can be used in any type of carpet, including tiles, six foot rolled goods, and the like. Furthermore, due to this difference in the use of thermoplastic material, the French patent relied upon by the Examiner also does not teach or suggest the claimed invention. Accordingly, these two rejections should be withdrawn.

At the bottom of page 5 of the Office Action, the Examiner rejects claims 58 and 61 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,661,691 to Slosberg. The Examiner asserts that Slosberg shows a thermoplastic foam secondary backing which is made by casting a vinyl chloride resin containing a blowing agent onto the back of the tufted carpet.

For the following reasons, this rejection is respectfully traversed.

Claim 58, as now amended, recites the presence of polymeric microspheres in the thermoplastic material of the backing layer. Since, as admitted by the Examiner, Slosberg does not teach or suggest the use of polymeric microspheres, this rejection should be withdrawn.

At page 6 of the Office Action, the Examiner rejects claims 58 and 61 under 35 U.S.C. § 102(b) in view of U.S. Patent No. 3,616,138 to Wentworth. The Examiner asserts that Wentworth relates to a thermoplastic foam backing for a carpet which is extruded onto the carpet backing. The Examiner indicates that the foam composition includes a blowing agent in the thermoplastic resin.

For the following reasons, this rejection is respectfully traversed.

Like Slosberg, Wentworth does not teach or suggest the use of polymeric microspheres in a thermoplastic material used in a secondary backing of a textile substrate. Accordingly, this rejection should be withdrawn

At page 7 of the Office Action, the Examiner rejects claims 25, 29, and 30 under 35 U.S.C. § 103(a) as being unpatentable over Ervin et al. and the French patent. The Examiner recognizes that claim 25 indicates that the textile substrate is a broadloom carpet, modular tile, or wide roll carpet. The Examiner asserts that this claim would be obvious in view of Ervin et al. or the French patent even though the cited art does not explicitly teach these types of carpets. The Examiner tries to argue that Ervin et al. and the French patent would inherently disclose these types of carpets by using the phrase "carpets." The Examiner indicates that the burden is upon the applicant to show otherwise. The Examiner further believes that the density of the secondary backing would be obvious even though neither cited patent teaches this carpet density. The Examiner asserts that it would be reasonable to presume that the carpets of Ervin et al. and the French patent are inherently within this density range.

For the following reasons, this rejection is respectfully traversed.

As indicated above, the claimed invention in part and especially new claims 64 and 65 specifically recite a textile substrate which is in the form of a modular tile or a six foot wide roll carpet. These types of carpets are not taught or suggested by Erwin et al. or the French patent. As indicated to the Examiner in the above-described rejections, and as described in the Background of the present invention at pages 1 and 2, modular tiles are gaining more and more of a market share in the United States due to the variety of advantages afforded by modular tiles. In addition, six foot vinyl back rolled goods are also increasing their market share over broadloom carpets due to a variety of advantages including superior dimensional stability. Carpet tiles and 6 foot wide rolled goods provide a difference in properties and end use applications compared to traditional 12 wide SBR latex carpets. As explained at page 2 of the present application, the latex chemistry is aqueous based where the vinyl chemistry is non-aqueous and SBR latex backed 12 foot wide carpet cannot be cut into carpet tiles or six foot wide rolled goods and have the same functionality due to conventional stability problems and the like. As explained at page 3 of the present application, the vinyl backed tiles and six foot rolled goods provide superior dimensional

stability, double moisture barrier, high wet tough bind, chemically weldable carpet seams, and the ability to withstand repeated wet cleaning which are not exhibited by latex backed carpets. Accordingly, to address the Examiner's comments, the present application quite adequately explains the disadvantages afforded by latex products and such products are associated with broadloom carpets and not with modular tiles or wide rolled carpets. Accordingly, for these reasons, Ervin et al. and the French patent do not teach or suggest the textile substrates of the present invention since the textile substrates of the present invention relate to vinyl secondary backings while Ervin et al. and the French patent relate to latex backings which are quite different and provide different properties. Accordingly, Ervin et al. and the French patent do not teach or suggest the claimed invention and this rejection should be withdrawn.

At page 8 of the Office Action, the Examiner rejects claim 59 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Wentworth. Claim 59 relates to limiting the secondary backing to a certain expanded ratio. The Examiner asserts that Wentworth teaches the presence of a blowing agent and therefore it would be obvious, in the opinion of the Examiner, to achieve this particular ratio of expansion.

For the following reasons, this rejection is respectfully traversed.

Wentworth does not teach or suggest the subject matter of claim 59 for the same reasons set forth above in the earlier rejection of claims 58 and 61. Wentworth, as explained above, relates to a thermoplastic foam backing for a carpet which is extruded onto the carpet backing. The Examiner's argument that the particular blowing ratio of expansion as recited in claim 59 would be obvious is incorrect. As explained at pages 18-20 of the present application, the traditional two step process of forming a foam layer requires a higher blow ratio on the order of a magnitude of above 2.5 and generally more on the order of 3 to 4. This high blow rate makes it difficult, if not impossible, to achieve a consistent thickness across the entire product due to such a large expansion of the layer. Unlike the conventional surface coverings, such as in Wentworth, the present invention avoids the need for such a high blow ratio by using polymeric microspheres in combination with one or more blowing agents which achieves the desired density but without the need for such a high blow ratio. By avoiding a high blow ratio, the ability to obtain a uniform thickness is more easily achieved. Thus, the blow ratio as recited in claim 59 would not be

obvious in view of Wentworth. Accordingly, this rejection should be withdrawn.

At page 9 of the Office Action, the Examiner rejects claims 31 and 33 under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over the French patent. The Examiner further rejects claim 60 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Wentworth as discussed above. Claim 31 relates to the secondary backing and the primary backing being affixed such that there is no delamination. Claim 33 has similar language. Claim 60 further has similar language. The Examiner asserts that the French patent and Wentworth would inherently prevent delamination due to the formation of steps described in each of these patents.

For the following reasons, this rejection is respectfully traversed.

Since these claims are dependent upon the independent claims discussed above, namely claims 58 and 23, the arguments provided above apply equally here and this rejection should be withdrawn. In addition, as explained above with respect to the latex chemistry used in Ervin et al. and the French patent, the claimed invention is not taught or suggested by these references alone or combined. Accordingly, this rejection should be withdrawn.

At page 10 of the Office Action, the Examiner rejects claims 26, 27, and 63 under 35 U.S.C. § 103 as being unpatentable over Ervin et al. or the French patent in view of the article entitled, "The Complete Carpet Manual," (page 27) and the article entitled, "Contract Carpeting," (chapter 4, pages 60-67). The Examiner asserts that Ervin et al. and the French patent do not teach the use of at least one adhesive or polymeric pre-coat layer beneath the primary backing. In order to overcome this deficiency, the Examiner asserts that the two carpet articles show a conventional carpet constructed of face fibers tufted into a primary backing, a backcoat of adhesive applied thereto, and a secondary backing for dimensional stability. Thus, the Examiner concludes that it would be obvious to one of ordinary skill in the art to use an adhesive or pre-coat layer to the primary backing and then to apply a secondary backing.

For the following reasons, this rejection is respectfully traversed.

Since these claims are dependent claims, for the reasons set forth above with respect to claims 23 and 58, this rejection should be withdrawn as well.

At page 11 of the Office Action, the Examiner rejects claims 26-28 and 63 under 35 U.S.C. § 103(a) as being unpatentable over Ervin et al. and the French patent in view of U.S. Patent No. 5,545,276 to Higgins et al. The Examiner relies on Ervin et al. and the French patent for the reasons discussed above. The Examiner further relies on Higgins et al. to assert that a carpet containing a pile layer, a primary backing, an adhesive backcoat, an adhesive layer for attaching a reinforcement layer, a foaming layer, and secondary backing are known. Thus, the Examiner concludes that one having ordinary skill in the art would employ these type of layers with the carpets of Ervin et al. and the French patent.

For the following reasons, this rejection is respectfully traversed.

Again, in view of the differences described above with respect to the use of a vinyl-type backing and/or the modular carpet tiles and/or six foot rolled goods, this rejection would be overcome for the same reasons, since Higgins et al. does not teach or suggest any of the deficiencies noted above with respect to Ervin et al. or the French patent. Though it is questionable whether Higgins et al. is combinable with Ervin et al. and the French patent, even if combined, the combination does not teach or suggest the claimed invention since there is no suggestion from the combination of using vinyl type textile substrates containing polymeric microspheres dispersed therein. Accordingly, this rejection should be withdrawn.

Finally, the Examiner rejects claim 34 under 35 U.S.C. § 103(a) as being unpatentable over the French patent in view of U.S. Patent No. 5,407,617 to Oppermann et al. Claim 34 relates to the amount of blowing agent present with the thermoplastic material. The Examiner acknowledges that the French patent does not indicate the amount of blowing material. In an effort to overcome this deficiency, the Examiner relies on Oppermann et al. to show that blowing agents in this amount would be obvious.

For the following reasons, this rejection is respectfully traversed.

The deficiencies with respect to the French patent described above apply equally here. Oppermann et al. does not overcome any of these deficiencies. As indicated above, the French patent relates to latex textile substrates and does not teach or suggest modular tiles or six foot rolled goods. There is no teaching or suggestion to apply microspheres to any other type of textile substrate. Oppermann et al. does not overcome any of these deficiencies. Oppermann et al. does

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not teach or suggest that polymeric microspheres can be used in other products. Furthermore, Oppermann et al. specifically relates to the use of practically no latex or PVC. Thus, its not clear how one would combine Oppermann et al. with the latex teachings of the French patent.

Accordingly, this rejection should be withdrawn.

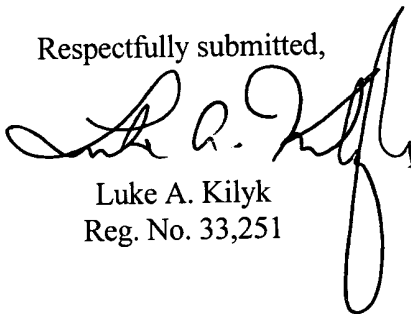
CONCLUSION

In view of the foregoing remarks, Applicants respectfully request the reconsideration of this application and the timely allowance of the pending claims.

If there are any fees due in connection with the filing of this response, please charge the fees to deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Should the Examiner deem that any further action by applicants or applicants' undersigned representatives is desirable or necessary, the Examiner is invited to telephone the undersigned at the number set forth below.

Respectfully submitted,



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